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UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau —— Bureau of Agricultural Economics

563622

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 6, 1937.

Issued jointly by the Division of Crop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Helena, Montana.

During Fall and Winter of 1936-1937

Deficient fall precipitation was unfavorable for late seeding and germination of grain and the late growth of grasses. Except in the eastern and a few central districts, winter precipitation was somewhat above normal, although much drifting of the winter's snowfall reduced its potential benefit decidedly in the lesser precipitation areas such as the northeast. Winter snowfall, where not too badly drifted furnished a good snow cover for the protection of winter grains, but dryness of the soil beneath hindered the crop's survival.

First reports on the condition of winter wheat at the end of winter indicated a range from poor to excellent, with the amount of winter-killing placed at none to as much as 30 to 40 per cent. Too much uncertainty, however, exists at this time in most areas to hazard a report on the percentage of survival, particularly in view of the crop's uneven germination from last fall's dry plantings. Big Horn, Hill, and Flathead counties reported winter wheat in mostly good condition, while Teton and Chouteau counties advised of mostly poor conditions.

It was a hard winter for livestock because of the denuded condition of most ranges and pastures east of the Divide, the low reserve of hay and other feeds at the beginning of the season, the poor quality of much of the feed, and the long duration of severely cold weather from late December until the forepart of February. Livestock in western sections came through the winter in good shape, with generally sufficient feed to carry them through to new grass. In eastern sections, most livestock reached spring in poor flesh, but with only a few heavy losses. Feed supplies in the east have largely been exhausted, and it has been necessary to import much high-priced feed.

Such reports as have been received to date on snowfall in the high watersheds of the State indicate that storage this winter has been mostly below normal, and that the maximum stream flow expected from melting snow is not only to be less than normal, but also less than last year as a rule. A fair to good supply of irrigation water is expected from the snowfall.

Late March snows were highly beneficial, and materially improved the moisture situation, as well as brightened the crop outlook, except in certain north-central and northeastern counties. At the close of March, vegetation remained practically dormant, and field work had started in only a few scattered districts in the eastern half of the State. The winter's snow cover melted slowly, allowing most of the snow water to enter the ground. Moisture in topsoils was sufficient for starting grass and spring sown grains, as well as winter grains, which survived.

Week Ending 6 P.M., Tuesday, April 6, 1937

Weather during the week was cloudy, unsettled, and too cold for plant growth. Additional rains and snows increased the amount of top-soil moisture, but with melting old snows, made fields generally too wet for working. Freezing nights also hindered field work. A little seeding of spring wheat, clover, and crested wheatgrass has been done, but seeding generally will probably not get under way for another week or ten days. Livestock required feeding, with a backward spring indicating late development of pastures and ranges, and the possibility of much feeding for another three or four weeks. Reports indicate plans for increased plantings of alfalfa and other grass crops, as well as feed grains. Calving and lambing made satisfactory progress, although a slight loss occurred among lambs because of the recent cold, wet weather.

Weekly Temperature and Precipitation Data

Station	Temperature		Total Precipitation		Sunshine
	Highest	Lowest	This Week	Since April 1	Percent of possib
Billings	54	28	0.11	0.11	*
Bozeman	41	16	0.79	0.79	*
Cut Bank	51	23	T	T	*
Fort Peck	50	22	0.17	0.17	*
Glendive	54	17	0.28	0.28	*
Great Falls	52	27	0.10	0.10	*
Havre	54	24	0.20	0.20	48
HELENA	51	24	0.08	0.08	57
Kalispell	48	28	0.18	0.18	26
Lewistown	53	23	0.40	0.40	*
Malta	46	12	0.73	0.73	*
Miles City	54	26	0.23	0.23	40
Missoula	52	30	0.12	0.12	34
Poplar	57	15	0.32	0.32	*

127-28

*No data.

Series- 1937 - No. 1
April 7, 1937.
Helena, Montana.

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Division of Crop and Livestock Estimates.

The following county summaries of crop conditions for week ending April 3, 1937, are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Temperature warm, with rain and wet snow general in county; snow covering except in Beaverhead valley. Moisture ideal for starting of grass as soon as it warms up a little more; some hay carry-over in the Big Hole and Beaverhead valley; no field work started yet; outlook for water very favorable. Livestock in good shape; some early lambing started; calving well under way with little loss to date; tagging very nearly completed, with a few bucks being sheared; no activity in wool; practically all fat steers sold, at $8.00 to $8.50.

BIG HORN: Weather so far this spring has been favorable with moisture conditions above the normal. No field work done yet. The winter wheat is reported as being in splendid shape. The grass has started in some places and when the weather turns warm a splendid start is assured. The livestock have come through the winter in fair shape, but heavy losses have been reported. Feed supplies are barely enough to carry through until grass. Mormon cricket hatching is expected generally in a few days. An organized campaign to control them is under way.

BLAINE: Temperatures moderate forepart of week. Cloudy with a heavy wet snow general throughout the county night before last and Friday. Moisture conditions greatly improved due to the heavy snow. Conditions prior to this week were exceedingly dry. A small amount of field cultivation and plowing was done in the irrigated valley during this past week. No field work has yet started in the dryland area. Farmers busy cleaning seed and preparing machinery for field work. 225 applications for seed loans have been filed in this county to date. Livestock came through the winter in fair condition with very little loss reported. However, a large amount of hay and concentrates have been shipped in during the past thirty days in order to bring the livestock through. As there is no old grass on the range, it will be necessary to feed straight through until new grass comes. Some ranchers have reported calving completed with normal calf crop received.

CARBON: Portions of the county covered with snow during the week and had precipitation in most of the county at least three days this week. More moisture in the ground now than there has been for a long time, and there is quite a revival of hopes for dry land farming. Some plowing being done and the ground worked in the Clarks Fork Valley area. Winter wheat is showing a good start during the past week under prevailing weather conditions in the western half of the county. Stock is coming through the winter in fair condition, but shows the shortage of feed. The shortage of crops last season is being reflected in the considerable increase in seed loan applications in the county, of which practically 100 have been taken to date by the extension office.

CHOUTEAU: Weather conditions during the past week have been very unfavorable from the standpoint of livestock men and also farmers. Severe cold necessitated the purchase of high priced feed and much additional fuel for homes. This resulted in the farmers spending more money than normal for their stock and living expenses. Tests recently made show that soil moisture is very deficient for crops. Prospects at this time are the poorest in the past several years. The winter wheat is not promising and is very spotted and very late. The spring is opening up very late and it is expected even with warm weather than there will be very little grass before two weeks.

CUSTER - POWDER RIVER: Light snows adding to soil moisture which is only sufficien to start a crop. Temperatures still close to freezing. No seeding of small grains to date. Winter wheat and rye coming up in good shape, but covers only small acreage. Spring planting of grains will be light due to lack of sub-soil moisture and prospects of insect damage. All stock still on feed. Very little grazing. Losses have been moderate, but everything in rather poor flesh. Present soil moisture enough to insure early grass. No labor needed.

DANIELS: Only a slight amount of precipitation fell during the month of March. Soil moisture condition poor. Snowfall rather light during winter and that which fell heavy winds caused to drift in the coulees, leaving very little if any on grain fields. No field operations to date due to cold freezing weather. Livestock wintered better than anticipated. Some hay shipped in for work stock and milk cows. One of the larger sheep outfits shipped their stock to western Montana last fall. During the past month, livestock has been grazing on prairies and stubble fields. Applications for seed loans will be greater this year than that of 1936. With the present set up loans are being handled more expediently than in previous years, hence farmers will have funds for spring operations.

DAWSON: The melting of winter snows put little moisture in crop land, except under flood irrigation projects. The period from the breaking of winter until two weeks ago saw little moisture, and fields were generally dry. Snow squalls have been rather general during the past two weeks and the present time finds about three inches of snow on most fields throughout the county, and some moistening up has occurred since the precipitation began. The soil is frozen and it is doubtful whether the moisture has penetrated to much depth, but the conditio are at least encouraging. No field work has been done yet. There has probably been more feed on wheels the past three or four weeks than for a considerable period. Feeding of some purchased feeds is being carried on generally throughout the county. Stock has not wintered too well, although losses have not been severe The present supply of moisture is certain to start the native grasses as soon as it warms sufficiently,- to that extent conditions appear favorable. A number of herds of sheep, which were wintered in the irrigated valley, have been brought home and are being fed. No wool has been contracted.

(Continued on Page 2.)

FALLON & CARTER: Snow and moderate temperature this past week. Soil moisture is still below normal although improved with snowfall. Crop conditions improving. Present indications for somewhat late spring seeding. Snowfall and lowered temperature require heavier feeding of livestock than ordinarily experienced in spring conditions. Feed still being shipped into area for stock, and it appears at this time that there still will be another month of feeding.

FERGUS: Snow and rain practically every day during the past week. Not much growth because of cool weather. Winter wheat making more satisfactory progress than was expected on account of being seeded dry last fall. Indications are at present for 70% or higher survival. Top moisture good, but subsoil dry from past year drouth. All moisture which has fallen during the month of March is gone in the ground with very little run off. Spring seeding started. Expect a large acreage of spring wheat. Most livestock has come through in fair shape. Light losses being reported in the past week. Lambing started. Average lamb crop. Hay being bought to carry through the last few days of the feeding period.

FLATHEAD: Weather cloudy and cold, with light precipitation general throughout the county. Weather has not warmed up sufficiently to produce any growth of pasture or range. Winter wheat is beginning to green up in parts of the county. There have been numerous reports of winter wheat winter-killing in the area northwest of Kalispell. Winter wheat in the southern half of the county has come through the winter in pretty good condition. Farm work will start next week if weather conditions remain the way they are at present. Top soil moisture is normal, but subsoil moisture is very much below normal. Livestock is generally in good condition. The lamb crop is about normal. Most livestock is coming out of the winter season in good shape.

GALLATIN: Up until the 15th of March, precipitation was below normal; however, frequent wet heavy snows the past two weeks have improved conditions materially. Winter wheat plantings are below normal, and the season is not far enough advanced to determine whether or not last fall's seeding, which showed uneven germination, will make a crop this year. In connection with the Agricultural Conservation sign-up, of almost double that of last year, there will be an increased planting of alfalfa and grass crops, and also considerable more attention is being paid to cultural practices and weed control work. There is a shortage of Trebi barley seed in the county, but a surplus of Victory oats, Marquis wheat, and brewing barley. Small amounts of hay still being shipped.

Most of the early lambs for the June fat lamb market are in excellent shape, with the growers reporting a high percentage of lambs and small death loss due to cold weather. A few range bands now being turned out to graze pasture which was saved last year. Grass just beginning to green on pastures in west end of county. Excess livestock shipped to this county for wintering have come through in excellent shape, and some of these herds will remain in the county permanently. This is also true of sheep. A few inquiries being made for farm help for the coming season, with no great surplus of this labor available. Road conditions in the south and east end of the county still very bad due to drifted snow and mud.

GARFIELD & PETROLEUM: General snow last of March and continuing into April improved soil moisture conditions greatly. Soil moisture adequate to start grass and any early crop. Moisture conditions fair for starting crops. Cool wet conditions have held up an early seeding. Practically no winter wheat sown and conditions very poor of that that was sown. Feeding of livestock continues. Very little use of pasture possible.

GLACIER COUNTY: Past winter has been quite severe, with considerable snow, according to many people. During March and to date, conditions have been variable; snowfalls and warm weather alternating. There is an insufficiency of surface moisture at this time. Good surplus of moisture in subsoil. Winter wheat 40% winter-kill, estimate. Early grass showing green in few places. No spring work. Farmers working on machinery and seed supplies. Price of wheat stimulating wheat growing thoughts in business people. Some sheep shipped here for feeding from other areas. Heavy losses sustained last winter by folks wintering here for first time. Generally livestock in fair shape. Adequate supplies of old grass on reservation. A few early calves and lambs being dropped. Labor adequate.

HILL: - Summerfallow has blown clear of snow and has less moisture reserve than stubble ground. Stubble ground very nearly normal. West two-thirds of county has very close to normal subsoil moisture, with summerfallow having less amount than stubble ground. Wet snows during past week have helped the situation to considerable extent. Grass is just starting to show signs of greenness. Winter wheat shows 100% survival of winter. Crested wheat and alfalfa appear to have stood the winter in good shape, while slender wheatgrass shows considerable winter-killing. Fall seeded crested wheatgrass shows good germination and starting to show above the ground. No field work to date, and with settled weather conditions, it will take from a week to ten days before any field operations will start. Range conditions are poor and it will take some time before livestock can be turned on to ranges. This is due to the severe over-grazing of last season. Livestock in very poor condition and will require supplemental feeds for at least another month.

JUDITH BASIN: Season backward; temperatures moderate; frost practically every night. Precipitation general and moderate. Past month improved crop outlook very much. Up to the first of March, snowfall was very light; the month of March has brought a nice supply of moisture which has wet down several inches. Weather conditions unsettled and outlook for more moisture favorable. No subsoil moisture, however. Soil blowing exceedingly bad up to the first of March. Past month has been hard on livestock. Feed scarce; range condition poor and no grass starting. Calving and lambing well under way.

(Continued on Page 3.

LAKE: - Weather past week generally unsettled; moderate precipitation; temperature normal. Spring retarded. Moisture conditions about normal. Winter wheat about 75% normal condition; plowing started in some localities, and grass just started on lower ranges. Livestock wintered in fair condition; required more feed; hay supplies low. Lambing fairly well over.

LEWIS & CLARK - BROADWATER: Only small amount of moisture received away from mountains. Very low subsoil moisture in dryland areas. Winter wheat conditions uncertain. Field work starting on a small scale in both counties. Late spring encouraging farm operations because of expectations of rainy spring. Grass not starting. Stock in fair condition with feeding being carried on generally in both counties. Lambing starting.

MADISON - JEFFERSON: Intermittent rain and snow storms throughout past week. Growing conditions poor. Soil moisture normal to above. Snow reserves fair to poor. Season retarded. Soil temperature low. Weather too cool and stormy for plant growth; too early to determine condition of winter wheat. A few farmers starting spring plowing. Some sweet clover and crested wheatgrass sown. Early lambing and calving in progress. Weather conditions unfavorable. Ranges poor; hay supplies sufficient.

MEAGHER: Occasional rain and snow; thawing; little run-off. Valleys bare. Local roughage supplies sufficient.

MISSOULA: Cool and cloudy all week. Light showers during week. Snow melted and frost out of ground in all communities except mountain valleys. All run-off has gone into the ground but some land west of Missoula is wet only to a depth of six inches. Land south and east of Missoula has fair moisture content. Plowing has started in some localities having lighter soils. Season is not as far advanced as usual at this date. Considerable damage to winter wheat has been reported, but extent has not been determined. Growth of alfalfa or grass has not started. Livestock in fair condition. Still feeding hay; practically no grass available.

MUSSELSHELL - GOLDEN VALLEY: More moisture was received during the month of March than there has been for seven years. About eight inches of snow fell in the middle of February. This gradually thawed off, and then ten inches fell during March. On the first day of April, one-fourth inch of rain fell. In the southwestern portion of Golden Valley County there is still a foot of snow on the ground. It has been impossible to do any field work since the 15th of March, due to the rain and snow. Winter wheat does not seem to be damaged. We have not had the usual severe winds during the month of March. No spring wheat has been seeded as yet. Twelve hundred acres of crested wheatgrass was seeded the earlier part of March. Livestock condition is lower than in former years, due to a shortage of feed and the poor quality of feed that has been purchased. Losses range from 10% to 50%.

PHILLIPS: From November 1 to April 1 precipitation 2.03 inches. Wet snow today will bring this to about 2.25 inches. Subsoil extremely dry and more moisture needed. Cloudy, with wet snow flurries all week and heavier snow today, look favorable. Runoff so far this spring light. Reservoirs filling. Some plowing but no seeding to date. Advising farmers to delay seeding account of cutworms. Intentions to seed wheat about 70% of last year; feed crops about 125 per cent. Seed situation fair. Only enough alfalfa seed left for local use. Heavier demand for sweet clover. Livestock condition fair to good. Few heavy losses reported this winter. Only feed available outside of valley is being shipped in.

PRAIRIE: In the past two weeks Prairie County has received about ten inches of wet snow, which has melted slowly and was readily absorbed. Farmers are more optimistic since the moisture came and plan on putting in nearly a normal acreage. A considerable acreage of forage crops will be sowed in 1937 if conditions continue to remain favorable. Livestock losses have been quite heavy due to the short pastures, long feeding period, severe winter, and poor quality of feed. The majority of the farmers have been working on the Resettlement project, but it is expected that the supply of farm labor will be ample.

RICHLAND: Temperatures generally low during week, retarding spring farming operations. Soil moisture below normal; crop outlook poor. Precipitation during week very light, in form of scattered snow flurries. Snow gone in most parts of county. Some farm work started. Considerable reduction in crop acreage expected due to shortage of seed and low moisture reserve in dryland areas. Reduction of sugar beet acreage expected in irrigated section. Livestock generally in fair condition considering feed shortage.

ROOSEVELT: Very little moisture during recent weeks. Moisture conditions rate about the poorest in many years and the shortage will influence crop acreage on many farms. Removal of weeds from fields has started, but this work is limited. Seed grain not too plentiful, but none ordered from other sections as yet. It is believed that local supplies plus trucked-in supplies from adjacent counties will be ample to meet local demand. Livestock in good condition generally, with some feed being bought.

ROSEBUD: Recent snows all melted; local rains and snows most of week. Wet weather has retarded all farm work. Some spring wheat seeded during March. Soil moisture above normal for south half of county. North half of county very dry except for surface moisture from recent snows. The small acreage of winter wheat planted last fall appears to have survived the winter although the condition of some of the late planting still seems to be in doubt. Livestock generally in fair to poor condition. Winter losses above normal. Further losses expected for another 30 days or until green grass will supply adequate feed to prevent further shrinkage. Additional shipments of hay will be necessary for work stock. Seeding of spring wheat will be limited due to lack of moisture, funds for seed, and grass-

(Continued on Page 4.)

hopper outlook.

SHERIDAN: Snow has melted and evaporated with very little runoff; snowfall has been very light this winter; January and February extremely cold. Conditions for a crop are poor in two-thirds of the county. A small area in the east and southeast sections of the county have considerable moisture stored from the July rains in 1936. There has been very little soil blowing during the winter. Livestock condition is fair to poor; early disappearance of snow has helped some. A few carloads of hay have been shipped in recently. Cottonseed cake has been used in considerable quantities, especially by sheepmen. Some activity on building PWA and WPA started. Farm activity is slowly picking up, but slower than normally due to poor prospects.

STILLWATER: .34 inch rain for week ending April 3. Temperatures moderate. This precipitation added to previous moisture has been ideal for giving winter wheat a good start. As yet it is hard to predict extent of winter wheat damage from blowing. Probably less abandonment than was predicted earlier. Practically all precipitation during March soaked into ground. Winter rye stand very good. Cattle in general are in poor to fair condition. Sheep in fair to good condition. Smaller flock sheepmen starting to lamb. Considerable hay being trucked in.

SWEETGRASS: The past week has been cloudy generally with some snow, freezing at night and thawing during the day. Precipitation since January 1 - 2.80 inches. Crop conditions very favorable. Winter wheat making good showing under snow. Estimate 20% damage to winter wheat from wind during winter, and insufficient moisture. Reported moisture 6 to 8 inches deep, with 10 to 12 inches of snow on ground that is being slowly absorbed. Frost not entirely out. No spring seeding. Oats and barley for seed being shipped into the county. 60% of the livestock is in poor condition due to feed shortage. Hay is being shipped in at $18.00 per ton. No reserve feed. Early lambing in small farm flocks has been satisfactory. 100% lamb crop reported. Straw for bedding being trucked in. 90% of livestock shipped out to winter out of the county.

TETON: Weather first part of week was rather cold for the season, hitting a minus 4 on the 28th. Warmer and clear the latter part of the week. Precipitation two hundredths inch. Very little winter wheat planted last fall. Moisture conditions at the present are the poorest they have been in many years for this time of the year. The first three months of this year we have had only 55 per cent of normal as compared to the 46 year average. Range is about in the poorest condition it has been in many years. The severe winter weather has been extremely hard on livestock. They are coming out of the winter in the poorest condition in many years.

TOOLE: The past winter was characterized by heavy snows and general blowing. Drifts 10 feet or better still in the county. Snow generally piled up. Past week beneficial snows were received throughout entire county. Precipitation of last fall helped restore subsoil moisture in the section north of the Marias River. Very little moisture received south of the river. At the present time the county is well supplied with surface moisture. There will be no work in the field for several weeks. Seed supplies are short, particularly oats and barley. Many used up their seed to carry cattle and other livestock through the winter. Sharp reductions last fall enabled many producers to carry through this winter. Feed supplies very short and feed still being shipped in. No heavy losses reported.

VALLEY: Snow flurries with very little moisture. Temperature averaging around 40 degrees. Very unfavorable growing conditions. Winter snow was much lighter than the past year, but with the high winds throughout the winter, the snow was blown in the low places, which kept roads blocked but did not give us any moisture. Moisture conditions at seeding time were poor, and very little winter wheat was planted. Crop conditions at this time look very unfavorable. Livestock conditions are none too good. Much feed was shipped into the county during the winter. Stock stood up fairly well until the storm a week ago, which caused heavy losses in sheep and some in cattle. Stockmen are still feeding heavily as there is no grass to turn out on. A little salt sage in the bad lands section gives some feed. Little call for labor and not many looking for labor on the farms.

WHEATLAND: Extremely dry during the winter and early spring. During the past several weeks considerable moisture has fallen in the county in the form of heavy snow and rain, resulting in much improved moisture conditions. This moisture has been general over the county and particularly heavy in the southern, western, and eastern portions; while the central part received some moisture, it was light. Due to the moisture received during the past 10 days, the conditions for crops are better than they have been for the past five or six years. In general, livestock have come through the winter in good condition, with very little loss. Stockmen have been forced to ship in considerable feed, particularly concentrates in the form of cotton cake. This purchase of feed has been larger during the past winter than normally. Hay supplies are adequate to carry the stock till grass in most cases unless we experience an extremely late spring.

WIBAUX: Heavy snow March 24. Cold weather since. More snow and blizzard April 2. Cloudy weather entire week. Moisture readily absorbed by ground. Still about 6 inches of snow on the level now. A normal grain crop will be planted if seed can be obtained. Corn acreage will be materially increased. April moisture conditions favorable for planting; however, there is no subsoil moisture. Livestock in fairly good condition. Some herds quite thin. Light losses reported during the winter of both sheep and cattle. Last week weather has been hard on stock.

(Continued on Page 5.)

YELLOWSTONE: Precipitation for past week, 0.26 inch. Weather cool with intermittent rains and snows over entire county. General growing conditions delayed by cool, wet weather. Winter wheat reported in good condition throughout dry land areas. No other crops seeded due to wet, stormy weather. Some field work has been done, but practically no seeding. Range grass beginning to green up, but growth has been held back by cool weather. Most livestock has come through the winter in fair shape. However, more feeding than anticipated has been done in many areas. Some losses of stock during past month. Most of lambing completed on the project, with good crop reported. Crickets have hatched in a few instances in the south area of Yellowstone County. Plans are being made for an intensive cricket control campaign.

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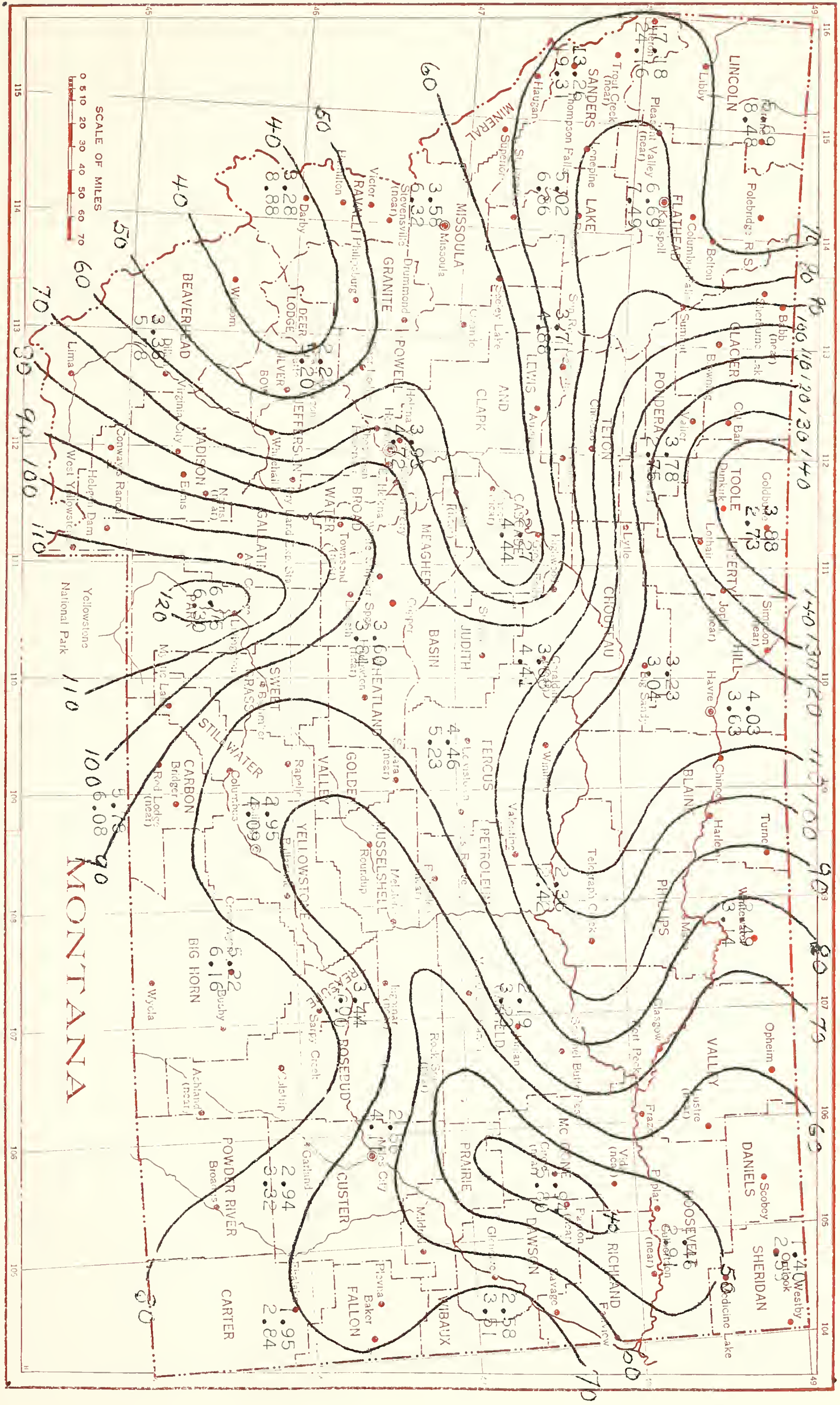
Helena, Montana,
April 7, 1937.


MONTANA
SCALE OF MILES
0 5 10 20 30 40 50 60 70
Yellowstone National Park
LINCOLN
FLATHEAD
GLACIER
TOOLE
LIBERTY
HILL
BLAINE
PHILLIPS
VALLEY
DANIELS
SHERIDAN
ROOSEVELT
RICHLAND
DAWSON
WIBAUX
FALLON
CARTER
POWDER RIVER
CUSTER
PRAIRIE
ROSEBUD
BIG HORN
YELLOWSTONE
CARBON
STILLWATER
SWEET GRASS
PARK
GALLATIN
MADISON
BEAVERHEAD
JEFFERSON
SILVER BOW
DEER LODGE
GRANITE
POWELL
RAVALLI
MISSOULA
MINERAL
SANDERS
LAKE
LEWIS AND CLARK
TETON
PONDERA
CHOUTEAU
CASCADE
MEAGHER
BROADWATER
JUDITH BASIN
FERGUS
PETROLEUM
GARFIELD
MUSSELSHELL
GOLDEN VALLEY
WHEATLAND
60
50
40
70
80
90
100
110
120
130
140

This map shows the percentage of normal precipitation that occurred in Montana during the 6-month period, October, 1936 to March, 1937, inclusive.

The upper of each typed pair of figures indicates the actual amount of precipitation that occurred in that respective area during the 6-month period; the lower figure of each pair indicates the normal amount for the same period.

U.S. Weather Bureau,
Helena, Montana.

UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau —— Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 13, 1937.

Issued jointly by the Division of Crop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Helena, Montana.

Weather conditions during the past week were more favorable for plant growth and farming operations. Warm, windy weather removed nearly all of the snow cover remaining from last week on lower elevations, and dried soils sufficiently to permit considerable plowing, harrowing, and some seeding. A few scattered areas about the State remained snow-covered, frozen, or too wet for field work.

Soil moisture conditions improved in the northeast as the result of melting snows and good absorption, and in the southern part of the State from the occurrence of moderate showers and snowfall near the close of the week. Depth of moisture in dryland soils ranged from 3 to 18 inches, and on the average mostly around 5 and 6 inches. Stubble land showed more moisture in numerous instances than summerfallow. Most dryland sections report no subsoil moisture with the future of grain crops and grass after the starting period entirely dependent upon seasonal rainfall.

Winter grains and grass responded with some growth to increased sunshine and mostly above normal temperatures, but freezing nights prevented any rapid development. Tree and early shrub buds were reported bursting in the warmer Bitterroot and Yellowstone Valleys. Spring continues backward, perhaps as much as two weeks for the State as a whole, with Carbon County reporting the latest season in 17 years.

Winter wheat was reported somewhat improved. Its general condition varies from poor to excellent. Abandonment on the average is expected to be between 20 to 25 percent, largely because of lack of moisture for fall germination and carrying the plants through winter. Spring wheat seeding is getting underway slowly. Seed beds are being prepared for sugar beets, a little seeding of which has already been done in the Yellowstone Valley.

Ranges and pastures are coming to life slowly, but the prospect of much new grass by heavy lambing time is poor. Hay meadows appear in good shape. Alfalfa and tame hay have not started and need warmer weather. There has been considerable reduction in the alfalfa acreage in the southeast during the last several years because of drought. More moisture is badly needed for grass in Teton County.

Livestock conditions are unchanged from last week, except that weather conditions have been more favorable, especially for lambing and calving. Livestock are beginning to rustle considerable old feed on ranges in the west, although still requiring more or less supplementary feeding. Heavy feeding of imported hay and concentrates continued in the east, where native forage aside fromstubble fields is lacking because of drought and insect damage last season. Livestock which have been wintered in surplus feed areas in this and adjoining States are being returned to their home range.

Plans for insect control are being formulated in southern counties, where serious infestations are expected this season, and crickets are already appearing.

Warm, windy weather reduced the mountain snow cover more rapidly but resulted in no appreciable increase in stream flow.

Weekly Temperature and Precipitation Data

Station	Temperature		Total Precipitation		Sunshine
	Highest	Lowest	This Week	Since April 1	Percent of Possible
Billings	67	30	0.34	0.45	*
Bozeman	53	19	0.49	1.28	*
Cut Bank.........	67	22	0.00	T	*
Fort Peck	71	30	0.02	0.19	*
Glendive	69	26	0.03	0.31	*
Great Falls	69	27	0.00	0.10	*
Havre	72	26	0.01	0.21	38
HELENA	64	25	0.04	0.12	71
Kalispell	58	26	0.04	0.22	46
Lewistown	69	24	0.02	0.42	*
Malta	69	27	T	0.73	*
Miles City	72	32	0.21	0.44	78
Missoula	62	28	0.14	0.26	58
Poplar	--	--	0.04	0.36	*

*No data

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April 14, 1937
Helena, Montana

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Division of Crop and
Livestock Estimates.

The following county summaries of crop conditions for week ending April 10, 1937, are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Temperature cool to cold; small amount of snow fell in some sections; snow melting slowly. Good soil moisture to date for working ground and starting grass; no field work started; water outlook favorable. One bunch of steers reported sold at eight and three fourths cents; no activity in wool.

BLAINE: Weather conditions normal for this time of year. No precipitation. The snow which fell last week is all melted and has improved soil conditions considerably. Some field work being done in the Milk River Valley. General conditions have not changed since last week. Stock which was wintered in the Milk River Valley has been movedto the home range during the past week. Also stock that was shipped to surplus feed areas for wintering is now returning to the home range. Considerable hay and concentrates are still being purchased by stockmen. Range shows no growth of grass as yet. Conditions of livestock normal for this time of year.

CARBON: Weather warmer, with only precipitation in the western portion in the form of light snows; snows have melted on farm land in all parts of the county, with the exception of the Luther territory. Farming has started in the Clarks Fork Valley. Much plowing and some seeding being done. Grass is beginning to start on hills. Stock in fair condition but in some cases is beginning to show the shortage of feed. The county is organizing for cricket control.

CHOUTEAU: No moisture during the week. Weather is generally dry and windy. No vegetation has started due to low temperatures and lack of moisture. Soil moisture is very deficient, and crop production is dependent largely upon seasonal rainfall. Winter wheat is spotted and is far behind the normal spring. Farmers are still feeding livestock as no grass is yet available.

CUSTER--POWDER RIVER: Warmer weather improving growing conditions. No precipitation. Seeding of grain crops now beginning. Soil moisture now sufficient to start early crops, but more rain will be needed later. Acreage of grain crops will probably not exceed normal. Alfalfa fields have not yet greened up, but show signs of life after a few days of warm weather. A high percentage of the acreage of this crop has been killed out by drouth in 1936 and preceding dry years. Reseeding of alfalfa this year will only be moderate. Sheep and cattle still on feed. Only a few outfits able to get sufficient grazing along with concentrates. Stock generally in thin flesh, but wintered better than a year ago. Recent snows provided enough moisture for early grass for lambing, which will begin in about two weeks.

DANIELS: Two light snowstorms brought only slight precipitation. More needed to germinate seeds. Some seeding in Scobey area. Livestock in fair condition ranging in stubble fields and prairie. Seed loan situation O.K.

DAWSON: Weather cleared forepart of the week and has continued favorable. Fields will soon permit farm operations. Field work just getting under way with conditions favorable for germination. Feeding of livestock continues. Warm days beneficial.

FALLON & CARTER: Moderate temperature with snow rapidly disappearing. Growing conditions fair to good. As result of pastsnow, moisture sufficient to makefor good seed bed. Present indications that seeding operations will start with full force as soon as farmers are able to get into the field. Grasshopper situation still questionable. Range conditions unimproved because grass has not started this spring. With continued warm days grass should show signs of much growth. Still Necessary to feed livestock and will be for short time to come. Livestock appear to have come through the winter in fair shape.

FERGUS: Very little moisture during past week. Warmer days starting growth. Some winter wheat making more satisfactory progress than was first expected. Spring seeding started in practically all parts of the county. Good weather past week has helped lambing operations.

FLATHEAD: Light precipitation the fore part of the week. Warmer during the latter part. A number of farmers have started spring plowing and a few are working down seed beds in preparation for planting next week. Growing conditions have been fair with some fields of winter wheat beginning to show considerable growth. The indicated percentage of winter wheat which winter killed was not changed from last week's report. Livestock conditions are good. Some feed is available on the range, but most operators are continuing with supplemental feeding. The lamb crop may be slightly smaller than last year.

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GALLATIN: Fore part of week rather heavy snow in the vicinity of Bozeman. No snow in the balance of the county. Latter part of week generally fair with average higher temperatures. Plowing and preparation of seed bed under way in extreme west end of the county. Balance of the county either still covered with snow or too wet for field work. Still too early to determine winter wheat prospects, although reports generally more favorable than a week ago. Some ditch cleaning being done. Some of the herds of both cattle and sheep shipped to this county for wintering are now being returned to home ranges. Farm flock lambing completed. Range lambing not yet started. Important meeting county cattle producers held Thursday for which work was started towards increasing quality in production of feeder cattle. This was attended by about 250 local cattle producers. Large increase in the amount of poison grain for ground squirrels being used over the same period a year ago.

GARFIELD - PETROLEUM: Moisture condition adequate to start grass and early crops growing. Warm weather during latter part of week. Moisture sufficient to encourage some planting of crops. Livestock feeding continues.

GLACIER: Weather mild. Snow drifts going rapidly. No precipitation. No cold weather. Spring work starting. Pastures continue to get greener. Livestock in fair shape depending upon hay available during past winter. Many sheep tagged in preparation for lambing. Adequate labor. Some reports of grasshoppers hatching out. Considerable gopher poisoning going on.

HILL: Moisture conditions below normal. No field work has started as yet. East one-half of the county will start field work this coming week. There will be at least another week before fields will be dry enough to start work in the west one-half of the county. Winter wheat apparently has come through the winter with very small percentage of winter kill. Ranges are starting very slowly. Livestock in very poor condition.

JUDITH BASIN: Precipitation very slight, temperatures moderate. Growing conditions improving. Moisture conditions on surface soil good, sub-soil moisture considerably below normal. Winds beginning to dry top soil. Farming operations will start within the next week if similar conditions prevail. Grass turning green in some places. Feed situation acute but will be relieved within two weeks if present conditions continue.

LAKE: Weather forepart of week unsettled with light rains and snow. Latter part of week clear; temperature higher during day, light freeze one night. Field work well under way latter part of week. No noticeable crop damage from freeze. Stock turned out on spring range in most localities in county.

LEWIS & CLARK - BROADWATER: Too cool for starting of grain. Precipitation not favorable except close in to mountain areas. Field work is increasing in scope, but held back considerably by cool weather and in some cases moisture conditions. All conditions affecting crops being watched closely and the acreage of crops put in will depend largely on future moisture developments. Some concern is being felt regarding the available irrigation water in parts of the counties. Livestock feeding continued. Lambing and calving progressing satisfactorily.

MADISON & JEFFERSON: Cold and windy during forepart of week. Latter half of week, fair and warm, but wind continued. No precipitation. Growing conditions improved over previous week, with some grass starting to turn green. Spring plowing and other types of cultivation got under way in nearly all areas during past week. A few farmers, started seeding spring grains on fall plowed land. Only slight change in condition of livestock over previous week, with feed supplies still in good shape in most instances. Spring calving well under way, with report of some loss in one area due to unknown cause. Conditions much improved over previous week for early lambing and calving.

MEAGHER: Occasional snow, temperature moderate, soil conditions excellent. Perennial crops appeared to have wintered well. Winter grain in good condition. Livestock in very satisfactory condition. A little extra feed beginning to be shipped into the county, although local supply is nearly sufficient. Some stock already grazing in lower country now. Considerable surplus of labor at present, principally lambing labor.

MISSOULA: Cool, stormy weather most of week. Scattered showers not much precipitation. Season about 10 days to 2 weeks later than normal. Winter wheat damage estimated at 40%. Plowing and field work in full swing although delayed by soil freezing each night. Seeding of spring wheat has started. Grass had started to grow but not enough available for pasture. Soil moisture is deficient in most localities although satisfactory for plowing. Still feeding hay to livestock in many localities. Some pasture available but not enough to improve condition of cattl

PARK: Fair and warm last part of week, skifts of snow early part. Farmers beginning plowing and some grass seeding in southern part of county. Poison ordered for cricket program. 50 tons grasshopper bait on hand. Serious infestation of both forecasted. Many stockmen running short of feed; no spring grass yet. Lambing and calving reported normal.

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PHILLIPS: No precipitation. Moderate temperature has melted all snow of last week and ground absorbed most of moisture which varied from .50 to.75 inches. Small amount of field work done in irrigated section, but none reported on dry land. Moisture conditions a little more favorable, and generally considered sufficient to start grass. Livestock still on feed and in fair condition. Hardest months yet to come until range picks up. No calving or lambing reported to date.

PONDERA: Weather warm and bright this week. High winds on Wednesday. No precipitation. Moisture reserves vary over the county. Farmers began field operations this week. Some sections of the county too wet to get into, especially in east end. Summer fallow in excellent condition. Subsoil moisture ranges in depth from 6 to 18 inches. No seeding of crops this week. Range pastures in the east and west ends of the county have better moisture conditions than a year ago, but additional moisture needed. Livestock liquidation in the past six weeks was a bit above normal due to the high price of feed. Some feed reserves will undoubtedly be carried over. Farm flock lambing started this week, but the larger portion of lambing will be next week.

PRAIRIE: Weather conditions have been favorable. Snow melting slowly and being readily absorbed by the soil. Nights cool and days fairly warm. Fields too wet for field work. Possibly will be able to start field operations by the middle of the week. Appears to be quite a shortage of seed grains. Livestock is in a serious situation due to the long feeding period and lack of cover on the natural grass lands.

RICHLAND: General moderate snows during the fore part of the week resulting in a fairly good soil moisture condition. Temperatures considerably higher in later part of week. Drying of the soil taking place enabling some farm work to begin. Outlook for crops are fairly good with considerable optimism prevailing among farmers regarding spring planting. Livestock situation unchanged. Considerable feed shortage. Some surplus of transient labor noticed but local labor in general being absorbed by W. P. A. projects.

ROSEBUD: No moisture received during week and very little seeding done. Seeding of sugar beets expect to start next week. Early estimates indicate about 25% of winter wheat winter killed. Some farmers waiting returns on seed loan applications to start spring wheat seeding. It will be necessary to continue moderate feeding to supplement range until new grass makes some growth.

SANDERS: Moisture supply very low. Precipitation for period Oct. 1 to April 1 was only 40% of normal. The winter snow supply in high altitude is 60% of normal. The surface moisture conditions very good from recent rains. Winter wheat in fair condition. 50% failed to come up before winter account of low fall moisture. Wheat fields showing green and making good growth. Hay meadows in very good condition with little winter damage. Livestock in good condition. Ample feed supply. Lambing in progress with ideal weather and high percentage of lambs reported. Farmers in field with spring work.

SHERIDAN: Drying, frost still in ground where there is moisture; cool for this time of year. A few scattered cases of wheat seeding started on sandy soils, otherwise unchanged. Livestock condition unchanged.

SWEETGRASS: Precipitation, none. Heavy frosts at night, warms up during day. There is about 6 to 10 inches of snow which covers 60% of the county, crusted and being absorbed slowly. Frost going out of the ground. Roads impassable. Wheat and grass under snow starting. Field work starting on fall plowing. No seeding started. Cattle in poor condition. Sheep somewhat better condition but as a whole, they are below normal. Lambing in farm flocks started. Good percentage of lambs. Some loss due to poor wintering. Calving started in small way.

TETON: No precipitation. Extremely dry and windy weather. Freezing temperatures every night. Grass starting to come in few places but badly in need of moisture. A few scattered farmers have started wheat seeding operations. Seed bed has practically no moisture over the greater part of the county. Along the northern edge moisture conditions are a little more favorable. A few scattered ranches report a good calf crop. Weather conditions are favorable for lambing, although not many flocks have started lambing as yet.

VALLEY: Approximately 6 inches of snow in western portion of the county, but much lighter in the eastern portion. Moderate winds are drying out the little accumulated winter precipitation. Temperature about normal for this time of the season. With limited amount of moisture, farmers are debating whether to seed on dry land or not. Irrigated farmers are preparing seed beds and conditions quite favorable. Comparatively heavy sugar beet acreage to be planted in Glasgow and Nashua districts. Farmers are contracting beets. Summerfallow carries an average of three inches of moisture. Stubble ground carries an average of five to six inches of moisture. Continuing to ship feed into the county. All livestock must be kept on feed as there is no grass or native forage for animals. Sheepmen worrying about available grass at lambing time.

WHEATLAND: Some moisture during past week in east and northeast portions of the county. During later part of week weather has warmed up considerably.

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Reports indicate that winter wheat is in spendid condition with not to exceed 10% winter kill. During the past week several of the range operators started lambing.

WIBAUX: No precipitation during the week. Cool weather first part of week. Warmer latter part. Most of the snow in fields is now melted. Very little seeding will be done before week of April 18 even if weather conditions remain favorable. Moisture conditions favorable for starting of grain and grass growth. No sub-soil moisture. Three farmers reporting some wheat seeded before snow. Snow and cold weather resulted in increased need of hay and feed. In large majority of cases cattle will have to be fed until new grass comes. A few reported lambing and calving completed with normal crop.

YELLOWSTONE: Weather warmed up considerably during the past week. However, cold nights with considerable frost. Growing conditions fair. Winter wheat reported throughout dry land areas, with some growth starting during the past week. All farmers in the irrigated sections busy in the fields. Some beets being seeded and some wheat, light showers slowing the work. Snow and moisture conditions still such that most dryland areas cannot get into the fields yet. Range grass greening up considerably. Most livestock in fair shape, but extra feeding has been necessary due to short range. Crickets hatching on south slopes and unprotected areas and cricket campaign to get under way by the middle of next week.

CASCADE: No precipitation for the past week. Approximately 50% of normal precipitation received up to this time. No reserve of sub-soil moisture, there being only sufficient surface moisture to start crops, and crop prospects depend entirely on spring moisture. The season is about normal, considerable field work already completed. Farmers are in the fields preparing for spring seeding. Winter wheat very spotted. No stands reported north of the Missouri River. Some good fields reported near foothills in Highwoods and Little Belts. Prospects for crops on winter wheat where good stands exist are better than in any spring wheat section at this date. Survival of alfalfa and other tame hay is satisfactory. Increased interest in irrigation development and feed production manifest in all sections of the county where development possibilities prevail. Immediate credit needs of farmers are being satisfactorily met through PCA, seed loans and Soil Conservation payments. The condition of livestock is in direct relation to amount of feed available on individual ranches and ranges from very thin to good. Some herds have suffered heavy losses due to unexpected long feeding period. No surplus of labor that is qualified and willing to do farm work.

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Helena, Montana
April 14th, 1937.

UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau —— Bureau of Agricultural Economics

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 20, 1937.

Issued jointly by the Division of Crop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Helena, Montana.

Strong drying winds during the past week improved working conditions in irrigated and other late wet sections, but depleted topsoils of some of their little and much needed moisture in other sections. The winds caused soil blowing in the northern and drier sections, with some damage to winter grains. Precipitation for the week consisted of a few light, scattered showers, which were of almost no benefit because of the high winds immediately following their occurrence.

Although temperatures were mostly above normal, there were several frosty nights and a lack of adequate sunshine, which generally restricted rapid development of vegetation. Good rains are urgently needed in a few areas, but for the State as a whole greatest benefit would result from warm, sunny weather during the next few days for the purpose of accelerating the growth of grass and relieving heavy feeding of livestock, for enabling farmers to finish seeding of early grains and promoting germination, and for improving the condition of winter wheat. Because of the limited amount of moisture available in dryland topsoils and an almost complete lack of subsoil moisture reserve, greatest benefit would only continue from such a warm sunny spell from good rains immediately following.

Prospects for an adequate supply of irrigation water this season is not good insofar as dependent upon mountain snowfall storage. Snow in the irrigation water source areas is below normal this spring, with dry soils expected to absorb most of the runoff. Irrigation of fields is under way in some areas, mostly for the purpose of moistening seed beds to the depth of subsoil moisture.

Field work has become general throughout the State. Much seeding of early spring grains, sugar beets, and grass was done during the week. Spring wheat is 25 to 50 per cent seeded, with some areas reported nearly finished. Early spring grains have begun to sprout. There is a shortage of good quality grain seed in places. While soil moisture is mostly ample for starting growth, other growing conditions for this time of season have not been as good as in recent years. Plant growth is perhaps more delayed than spring work. The season for plant growth is considered about ten days late. Winter wheat is not doing so well. Conditions are spotted. Some needs moisture, and all needs warmer weather. Summerfallowing has started. Most early truck garden stuff has been planted in the lower Bitterroot Valley. Fruit trees and berry bushes appear to have come through the winter in good shape.

Pastures and ranges continue coming along slowly. New grass is beginning to furnish some feed for sheep, but is still too short for other livestock. The late spring season is increasing the feed shortage and causing additional losses among thin eastern herds. Alfalfa is showing a little life in irrigated fields, but very little on drylands. Livestock are still being moved back from winter feed districts. Considerable activity is noted in connection with restocking eastern ranges with sheep; restocking with cattle is slow because of present high prices and the probability of poor range conditions again this year. Lambing increased. The percentage of lambs has been high. Many range outfits have not started lambing but are expected to get under way this coming week.

A survey of the insect situation shows crickets and grasshoppers hatching in large numbers in southern districts. Arsenic dusting for crickets is expected to start at once in areas where organization for control has been completed.

Weekly Temperature and Precipitation Data

Station	Temperature		Total Precipitation		Sunshine
	Highest	Lowest	This Week	Since April 1.	Percent of Possible
Billings	76	32	T	0.45	*
Bozeman	60	25	0.26	1.54	*
Cut Bank	61	28	T	T	*
Fort Peck	72	35	0.02	0.21	*
Glendive	82	33	T	0.31	*
Great Falls	64	30	T	0.10	*
Havre	66	36	0.08	0.29	64
HELENA	63	29	T	0.12	61
Kalispell	56	30	0.27	0.49	24
Lewistown	66	23	T	0.42	*
Malta	67	33	0.00	0.73	*
Miles City	80	34	0.03	0.47	66
Missoula	60	34	0.33	0.59	36
Poplar	71	28	0.00	0.36	*

*No data.

Series - 1937 - No. 3.
April 21, 1937.
Helena, Montana.

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Division of Crop and
Livestock Estimates.

The following county summaries of crop conditions for the week ending April 17, 1937, are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Temperature cool; some wind; snow still holding in hills. Field work will start as soon as the weather warms up; some winter-killing in alfalfa reported. Livestock wintered in the county being moved out; very little loss in early lambing.

BIG HORN: A light precipitation fell early in the week, but the moisture has been sapped by high winds during the week and the non-irrigated sections are somewhat dry. Land in irrigated sections is still wet and drying weather is welcomed. Spring wheat seeding nearly completed, but beet planting just begun, with a large acreage contracted. Nights still cold. Range is slowly turning green and cattle are generally turned out on it. Lambing well along, with high percentage of lambs. Rain needed to hasten the grass. Mormon crickets are hatching in alarming numbers and several communities are organizing to control them by arsenic dusting.

BLAINE: No precipitation. High winds prevailed during entire week. Growing conditions unfavorable, due to cool, frosty nights. Seeding of small grains started in all sections of the county. Seeding of sugar beets well started in the valley. Indications point toward an increased beet acreage. Livestock coming back into the county from winter feeding points. Stockmen still feeding hay and concentrates. Range grass growth is slow.

CARBON: Very dry winds in most sections; no precipitation except near the mountains. Warm weather, but cooler Friday and Saturday. Beet seeding begun in the Clarks Fork area. Grain seeding very well along, with fields drying fast. Winter wheat making fair growth in most sections of the county. Ranges still continue short. Livestock in fair condition; still showing shortage of feed. Cricket control work progressing daily; dusting work to begin soon.

CASCADE: No precipitation during past week. High winds and cool weather have robbed crop land of practically all precipitation which had fallen heretofore, doing much damage to winter wheat and making seeding conditions for spring grain unfavorable. The condition of winter wheat is spotted. In the northern section of the county, practically all the acreage will be reseeded, while in the southern section and Highwood area, indications are that stands are still fair. Damage to winter wheat reported from Army cutworms in two communities. Spring seeding in some sections has started and summerfallowing is getting under way. Contracts for sugar beet acreage in the Fairfield and Sun River area indicate an increase of 50% in this crop. Acreage of seed peas will be about the same as last year. Some increase in seeding of potatoes is indicated. Seeding conditions on irrigated land are about normal.

Livestock are in fair condition but ranges are poor and in many sections there will not be grass on which to turn out stock until more moisture is received. Lambing is under way in some areas and a good lamb crop is reported. Stockmen have reported good calf crops but the future welfare of cattle and sheep is dependent entirely upon summer rains. No surplus of good farm labor.

CUSTER - POWDER RIVER: Warmer, with few light scattered showers. High winds have had drying effect on top soil. Soil moisture still sufficient for early seeding, but more top moisture needed to get crops started. Spring grain seeding well under way. Very few alfalfa fields showing any life except under regular irrigation. Warmer weather and rains may revive some stands appearing dead at present. Beet fields now being prepared for seeding. Ranges slowly coming to life, but in need of rain. Grass still too short to provide much grazing except for sheep. All stock is in poor flesh and not gaining. Few lambs and calves being dropped yet. Occasional losses of cows and heifers at calving being reported, apparently due to nutritional deficiencies. Mormon crickets reported hatching.

DANIELS: Cold, windy, generally dry; one shower, .03 inch precipitation, during the week. Seeding one-fourth completed; early seeded grain sprouted. Some soil drifting where crop stripping not practiced. Ample seed wheat; not enough local 1935 seed oats to supply demand. Corn acreage will be increased. Local seed indicates high germination. Livestock in fair condition; only normal losses to date. Some green vegetation appearing on southern slopes. Ample labor to fill demands for field operations.

DAWSON: Drying conditions prevailing throughout the week, with considerable wind and somewhat high temperatures and no amount of precipitation. Field operations became quite general toward the close of the week, with some operators well along to the end of seeding. Soil moisture ample for germination, but no reserve. Perennial forage seeding is increasing under the stimulus of Conservation Program. Some soil blowing occurred under severe winds during middle of week. Earlier wheat grasses and sedges greening on the lower stretches. Stock picking up forage here and there. Some losses occurring.

FALLON & CARTER: Very favorable conditions for plant growth. Warm, windy weather has dried fields and farming operations are under way. Temperature and six to eight inches of top soil moisture will make seed grain sprout readily. Moisture conditions in general below normal. Sub-soil moisture lacking. Grasshopper situation still questionable. Early hatch of grasshoppers noticed in northern range portion of Fallon County. Grass showing signs of growth and with continued favorable growing conditions will grow rapidly. Should have good grass for lambing season.

FERGUS: Dry during week. Wind caused heavy loss of moisture. Still cold; growth retarded. All stubble wheat stands fair. Wheat on fallow still in doubt but much must be reseeded due to unfavorable weather during past two weeks. Grass showing; some killing and is slow in starting. Some stock being returned to county. Much being sold in west part of state because of grasshopper prospect and feed shortage here. Calving and lambing well under way. Below average being saved.

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FLATHEAD: The past week has been cold and cloudy, with light precipitation in most areas of the county. The seeding of spring wheat has started and in some communities is pretty well completed, but growing conditions have been poor for this time of the year. There has been very little drying out of top soil moisture. Some decrease in pea acreage is expected this year, with a corresponding increase in wheat acreage. The condition of livestock is generally good. Pastures are beginning to green up, which will reduce the amount of feeding materially in the next week or ten days. Labor adequate.

GALLATIN: Weather has continued cold and damp all week. Heavy snow forepart of week. Some seeding and preparation for same is being done in the extreme west end of the county. It is still too wet for field work in balance of county. During the week considerable run-off occurred in the area south and southwest of Bozeman. This was from rapidly melting snows and caused nearly all roads in this area to become impassable. Grass starting in those areas on the southern slopes which have been cleared from snow for a few weeks.

GARFIELD - PETROLEUM: No precipitation of benefit. Cropping conditions fair to good. Drying winds somewhat unfavorable toward growing conditions in the starting of grass. Weather and moisture have been favorable to the seeding of spring crops the past week. However, only enough moisture is available to start these crops and more will be needed soon if a normal amount of seeding is to be done. Seed supplies reported short. Livestock condition mostly unchanged. Temperatures favorable for starting grass. However, because of scarcity of cover protection, grass is starting slowly and is of little value as pasture as yet.

HILL: - Growing conditions fairly good. High winds caused some slight soil blowing. Field work in general over the east two-thirds of the county and some work starting in the west one-third. Winter wheat is showing a good start. Grass starting slowly. Range conditions are very poor. Livestock in thin condition.

JUDITH BASIN: Precipitation slight; temperatures moderate; excessive wind blowing. Surface moisture normal; sub-surface moisture below normal. Serious soil blowing during past three days. Most of farmers now in the field; planting well under way. Grass turning green; will enable many operators to lamb on green grass. Range short.

LAKE: Weather conditions cloudy and with few scattered showers over the county. Windy the latter part of the week. Temperature below normal. Growing conditions retarded because of lower than average temperature. Plowing and field work continuing. Some seeding done. Lambing drawing to a close. Snow off from foothills and practically all livestock turned out.

LEWIS & CLARK - BROADWATER: Continued cool weather, with rising temperatures toward last of week. Below freezing temperatures reported in mountain districts, but later rising temperatures indicated directly by increased grass growth. Drying winds prevalent in Lewis & Clark County. Moisture in some areas close to mountain areas greater than last year, andthis factor coupled with cool weather has delayed spring planting. Dryland areas away from mountains have less moisture than last year. Snow in mountains, which affects irrigated areas in northern Lewis & Clark County, less than last year. Field operations generally in full swing. Warming temperatures making lambing and calving condition more favorable. Slow grass growth makes continued feeding necessary.

MADISON - JEFFERSON: Some areas received beneficial rains during past week, but most of the areas in both counties were without precipitation Continual winds rapidly removing soil moisture. Farmers seeding grain, with many able to get land prepared to start seeding soon. Some reports of winter-killing of wheat, but have not had enough growing weather to determine accurately the amount. Range in some areas taking on slight greenish tinge, but very little growth of grass to date. Lambing and early calving well under way, with average to good crops being secured by most stockmen. A few, however, are losing both ewes and lambs, and report a shortage of milk. Most stockmen have sufficient feed supplies at present time.

MEAGHER: Two windy days. Little snow flurries and showers during week. Grass not starting yet. Crop land drying some during week; moisture a little short in high fields. Lambing beginning next week; sheep in good shape; stock being turned out to grass daily. Calving in progress.

MISSOULA: Moderate temperatures. Scattered showers; generally good growing conditions all week. Grass making good growth on all lower hills and pastures. Spring work in full swing in all communities except higher mountain valleys About 60% of winter wheat killed out and will be reseeded to spring wheat. About 30% of spring wheat seeding completed. Truck gardeners have completed most of their early seeding. Very little feeding of livestock being done now. Most cattle are on lower pastures. Cattle improving in condition.

MUSSELSHELL - GOLDEN VALLEY: April 4th there was a quarter inch of rain, and snow fell in part of Musselshell County. Area covered was twenty miles wide, starting north of Roundup and running across the county to the south, extending to within five miles of Musselshell. The balance of both counties have not had any moisture this past week. Two days of the most severe winds were had this past week, being the first for over two months. Crop conditions are very good so far, and in most places the winter wheat has come through in good condition. In a few spots, where water stood and froze, wheat killed out. Spring seeding was started the past week in most communities in both counties. Grass is growing slowly, but seems to be stooling out better than in past years. The livestock situation remains the same, with most of the stock thin and weak, and the ranchers still buying feed. As yet, no new grass has gotten far enough along to supply feed for the livestock.

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PARK: Freezing nights and frost in the ground preventing farmers from getting in fields except in Yellowstone Valley, where farmers are in the fields. Warm days causing grass to start. Calving and lambing in progress with average losses. Feed supplies getting very short. Farm labor is scarce and many farmers are in need of laborers. Participation in the Agricultural Conservation Program expected to be increased 50% over last year.

PHILLIPS: No precipitation. Grass starting slowly. Warmer weather, and generally clear. High winds during week and severe dust storm. A number of dry land farmers have started spring work. Preparation for beet planting in the valley is under way. Still no range for livestock and farmers are all feeding. Condition of livestock unchanged.

PONDERA: High winds and relatively cool weather throughout this week. Field work under way; some summer fallowing and wheat seeding is being done. Planting of grass for conserving crops began the latter part of this week. Seed oat and barley supplies low. There is also a local seed wheat shortage in the central part of the county, caused by fire destroying approximately 75,000 bushels of wheat stored by farmers in an elevator. The east third of the county is practically without seed wheat due to drouth conditions in 1936. The desire for planting feed crops such as oats and barley is stronger than that of a year ago. Hay reserves appear sufficient to hold out until grass appears for livestock feeding.

Early grasshopper hatching reported in three sections in which heavy infestation is expected. Potential infestation in north half of the county expected to be approximately 55%. Pale western cutworms are beginning to show appearance lightly in anticipated infestation areas.

Lambing in larger bands will begin about the 25th of this month. Calf crop, where sufficient feed reserves were held, will be slightly above normal. Considerable liquidation of cattle took effect after the storms in February.

PRAIRIE: Weather conditions have been quite favorable, with weather cool and fields drying. Farmers were able to get in the field about the middle of the week, and seeding is going on in all parts of the county. Blue joint bottoms and Buffalo grass are beginning to turn green. Most of the sheep and cattle are still on feed. Much of the stock of the county is rather thin, but quite strong.

RICHLAND: Partly cloudy and windy most of week. An average of five to six inches of moisture in most of the farming lands not under irrigation. A few grasshoppers showing up in spots about the county. Nearly all farmers are in the fields, with some weeding of spring grasses taking place. Interviews with farmers indicate a decrease in beet acreage, with a resultant increase in wheat and corn under irrigation. Some increase in corn acreage expected in dryland areas also. It is expected that a general decrease in acreages of grains will take place on dry land.

ROOSEVELT: Slight precipitation during the past week. Days warm and perennials are starting growth. Field operations became general about April 13. Moisture conditions are none too good, but practically a normal acreage of small grain is expected. Seed of good quality is very scarce in the western part of the county, but still available in eastern districts. Livestock very thin, but few losses reported.

ROSEBUD: A good rain early in the week helped materially in starting new grass. Additional rains and warm weather needed to promote more rapid growth of new grass. Seeding of wheat and sugar beets under way during week. Loss of winter wheat appears greater than earlier estimates. Latest estimates show close to 50% loss of a rather limited acreage seeded last fall. Livestock for most part turned on range. Grass barely adequate to maintain them. Some herds still being fed. Crickets reported hatching over a wide area. Over three-fourths of a million acres including the Cheyenne Reservation, were infested in 1936.

SANDERS: Good showers every day, with total of 1.06 inches precipitation for the week. Ideal growing conditions. More rain needed for sub-soil. Winter wheat making rapid growth. Wheat coming up on fields which were too dry for germination last fall. Fair stands generally, with little winter killing. Meadows greening up rapidly and in fine condition. Farm work well under way. Spring seeding started. Livestock in good condition. Range making fast growth. Livestock mostly on range. Lambing mostly completed, with average lamb crop above 100%. Crickets reported hatching in few areas.

SHERIDAN: Continued dry, but a few sprinkles during week; cool. Seeding general on fallowed ground; also some on stubble. Moisture for starting varies over county; west, northwest sections quite dry. Feeding of livestock continues except where ranchers have reserve grazing. Some improvement in labor situation but farmers are slow to hire help where work can be done by themselves.

STILLWATER: High winds general during week. Weather too cold for good growing conditions. Considerable land preparation and seeding being done in irrigated sections. Crickets starting to hatch in several parts of county. Condition of cattle poor to fair. Some ranchers still feeding. Sheepmen starting to lamb, with good lamb crop being reported.

SUN RIVER PROJECT: The past week has been cold, with considerable high winds that have done much to take what soil moisture was available. Most fields are in very poor condition for seeding. Field work started first part of the week. Very little seeding has been done and it may be necessary to irrigate before seeding where stubble was not irrigated last fall. Feed supplies are very largely used up, but enough feed available to carry stock to grass. Sufficient su ply of labor available to meet all demands.

(Continued on Page 4.)

SWEETGRASS: No precipitation. General growing conditions have been poor the last week. Cold day and night. Very little growth made of vegetation of any kind. Snow completely absorbed, averaging 20 inches of ground moisture. Spring seeding just starting. Most of fields too wet. Winter wheat coming slowly. Very little growth the past week due to cool weather. Spring plowing started only on higher ground. Preparation of seed beds on fallow under way. Livestock in poor condition due to shortage of feed, especially cattle. Sheep in better condition. Early lambing well under way. Considerable loss in lambs on account of shortage of milk due to poor and insufficient feed. A few reports of cows and young calves being turned on pasture to rustle. Calf crop below normal. Crickets starting to hatch.

TETON: No precipitation. Freezing every night. Extremely windy. Probably the most severe soil blowing has taken place this past week on all areas not stripped. Stripped areas are demonstrating their value in preventing soil blowing. Seeding quite general over most of the county. Seed bed is practically devoid of moisture. Range grass has not started to green as yet. Lambing is quite general. Calving is pretty near through, with possibly a lower percentage of crop than normal. Livestock in none too good condition.

TOOLE: Unsettled weather with high winds has prevailed during the greater part of the week. Some soil blowing in a few areas. High winds had drying effect and farmers have been able to get into their fields for the first time in the southern half of the county. No work being done in the northern half at the present time. Seeding expected to start in the southern half during the next week. Most operators successfully wintered their livestock although at high costs. Lambing just started. with a few operators. Bulk of lambing May 1st to May 15th.

VALLEY: The forepart of the week was characterized by cloudy weather and some wind which increased to high winds, which caused some wind erosion. Only a trace of moisture the forepart of the week. Approximately one-fourth of the farmers are in the field seeding this week. Very little moisture even for germination in some localities. Most of the seeding being done so far is on early summerfallow or stubble ground. There will be an increase in sugar beet acreage this year in the valley with the ditch, and a large number of farmers preparing their soil for planting of sugar beets. Contracts are being signed at this time. Livestock in most cases being fed yet. Some of the sheep are being moved to the range and fed there. Sheep are in good condition. Cattle in most cases are still kept up but in very poor flesh.

WHEATLAND: Cool, cloudy and windy during past week, with small amount of moisture in eastern portion of county. Grass has started in the east part of the county, but in general the grass is backward due to the cold spring. No change in the livestock condition.

WIBAUX: Sufficient moisture to start grain in good shape. Some field work has started. Seeding will be in full swing next week. Indications are that the wheat acreage planted will be 85% of normal. The corn acreage will be increased as will also the acreage of feed crops. There will be a substantial acreage of gras crops planted to comply with the Agricultural Conservation Program. The livestock situation is unchanged. Hay and feed will have to be purchased until new grass.

YELLOWSTONE: High winds for the past four days have done some injury to winter wheat. However, still plenty of moisture and stands in most areas looking favorable. Weather slightly colder. Spring seeding in full swing. Record acreage of sign-up of beets expected. Approximately 5500 acres of beets planted at the present time. This is about one-third of the expected acreage. Approximately one-fourth of spring wheat seeded. Fallowing started in some dry land areas. Range grass greening up considerably. Most livestock in good to fair shape; lambing practically completed on the project and range lambing about to start. Most serious infestation of crickets expected. Crickets hatching by the million on the south side of the river. Area divided into twenty-seven small communities with crews being organized at the present time to carry on dusting and poisoning operations.

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Helena, Montana,
April 20, 1937.

UNITED STATES DEPARTMENT OF AGRICULTURE
Weather Bureau —— Bureau of Agricultural Economics

OFFICE OF COMPT
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MAY 1
AGRICULTURAL ADMINISTR

REPORT OF WEATHER AND CROP CONDITIONS IN MONTANA
For the Week Ending Tuesday, April 27, 1937.

Issued jointly by the Division of Crop and Livestock Estimates and the Weather Bureau.
Offices: Fourth Floor, Federal Office Building, Helena, Montana.

The first part of the week was cool, cloudy, windy, and marked by frequent, scattered showers and snowstorms. Farm work progressed satisfactorily over most of the State despite early unfavorable weather conditions, but plant growth was retarded during the first part of the week by low freezing night temperatures. Vegetation, however, suffered little or no harm from the hard freezes because of the backward state of its development. While the week's precipitation was mostly light, it was of some benefit in several western and southern districts, but generally too light to help most eastern and northern districts where needed most. The last part of the week was warm and sunny, with the first real favorable weather of the spring for farm work and plant growth.

As is usual for Montana at this season of the year, farm work varies widely in the state of progress from having just started in late sections to being nearly completed in the more advanced ones. Southern areas are most advanced. Seeding of spring wheat is more than half done, with earliest sown beginning to emerge in several parts of the State. Lack of adequate soil moisture for the present is holding back some farmers in the east and north from further planting. Some oat planting has been done. Seeding of sugar beets ranges from half done to nearly completed, with good rains needed to make even stands. Several districts are reporting the largest acreage ever sown to sugar beets. Winter wheat is in fair to good condition, a little improvement being noted during the week. Reseeding of abandoned acreage is under way where determination of the extent of survival has been possible. High winds, army cut-worms, and wire-worms caused some local damage to winter wheat. Winter rye is looking good, but is in need of rain. Early shrubs and trees were reported coming rapidly to leaf at the close of the week.

Warm, sunny weather during the latter part of the week hastened the development of pastures and ranges, and lessened the burden of feeding generally. Lower ranges and pastures are now carrying sheep, and with continued warm weather and some rain should be able to take care of most livestock fairly well within a week or ten days except in some of the eastern parts of the State where grass appears to have died out from last year's severe drouth. Alfalfa and sweet clover are beginning to show in irrigated fields. Larger plantings of legumes and grasses are reported this spring.

Livestock are beginning to show some improvement in the west, but continue mostly poor or holding their own in the east. Late snows and cold weather this week were hard on lambs and calves and were responsible for a few losses. Lambing is generally under way, with the exception of a few extreme northern districts.

Warmer weather was more favorable for hatching of insect pests. Cricket control work started in Yellowstone and Big Horn counties.

Warmer weather also resulted in heavier run off of mountain snowfall, resulting in a slight rising of mountain streams. Irrigation water has been made available to the Sun River and Fairfield Projects the earliest ever known.

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WEEKLY TEMPERATURE AND PRECIPITATION DATA

Station	Temperature		Total Precipitation		Sunshine
	Highest	Lowest	This Week	Since April 1.	Percent of Possible.
Billings	75	29	0.27	0.72	*
Bozeman	69	17	0.33	1.87	*
Cut Bank	75	25	0.13	0.13	*
Fort Peck	66	25	0.13	0.34	*
Glendive	69	24	0.04	0.35	*
Great Falls ...	76	26	0.06	0.16	*
Havre	78	26	0.01	0.30	76
HELENA	75	22	0.17	0.29	56
Kalispell	76	28	0.42	0.91	38
Lewistown	75	24	0.13	0.55	*
Malta	71	23	T	0.73	*
Miles City	66	28	0.11	0.58	76
Missoula	82	30	0.17	0.76	52
Poplar	65	21	0.02	0.38	*

*No data.

Series - 1937 - No. 4.
April 28, 1937.
Helena, Montana.

W. E. Maughan, Weather Bureau.
Jay G. Diamond, Division of Crop
and Livestock Estimates.

The following county summaries of crop conditions for the week ending Apr. 24, 1937 are furnished through the courtesy of Director J. C. Taylor, Montana State Extension Service.

BEAVERHEAD: Weather cold, with drying winds; no precipitation past week. Field work started; grass has not started due to cold weather; outlook for grass for the first part of May lambing not favorable. Livestock still being fed; small loss in calf and lamb crop to date.

BIG HORN: Weather cold, with light showers and snow at the week end. Farm work well along. Spring wheat practically all in and 60 per cent of beets planted with the largest acreage contracted any one year. Moisture ample for early starting. Winter wheat in fair condition but spotted in places. Range greening up and cattle generally turned out. Lambing well under way, with high percentage of lambs reported. Crickets hatching in alarming numbers and the control under way in six communities.

BLAINE: No precipitation. High winds during the week sapping much of the soil moisture and causing bad dust storm Wednesday. Farm work progressing in good shape. Range in very poor condition. Livestock still being fed concentrates and hay. Grasshoppers are hatching in large numbers in several parts of county.

CARBON: Light showers in different sections of county during the past week, with heavier snows in the western portions, and light snows in the northern part the latter part of the week. The weather has been very cool. Seeding of sugar beets is well under way and in some cases almost completed. Small killing out of winter wheat. High winds two days of the past week bad for winter wheat. Grass and range making a good start in most sections of the county.

CASCADE: Precipitation .06 inch, in the form of snow and hail. Cloudy, cool weather the entire week added slightly to the hopes of farmers for enough surface moisture to germinate grain and other spring crops. Army cutworms continue damage to winter wheat and several reports have been received of fields having been blown out. The seeding of spring wheat and summerfallowing have continued regardless of the lack of moisture in the main wheat farming districts of the county.

Some sugar beets seeded, and the acreage contracted is double that of last year. Grasshoppers and crickets are reported hatching in large numbers in the southern part of the county. Irrigation water will be turned into the canals on the Fort Shaw and Sun River projects the 1st of next week. This is the earliest that irrigation water has ever been available to farmers in this area.

Livestock in fair to good condition; some slight damage to lambs from the snow storm and cold weather.

CUSTER - POWDER RIVER: Light scattered showers during week, but not sufficient to add any to soil moisture. Cooler, with some winds. Weather generally backward for crop growth. Spring grain seeding well along, but total acreage will be light. Continued dry weather is discouraging further seeding. Some alfalfa being reseeded. Winter rye still looking good, but in need of moisture. Beet fields prepared and ready for seeding. Ranges continue to green up but feed still short. Sheep on grass entirely and looking fair. Lambing now beginning. Cattle turned out but still thin and not gaining. Calf crop looks fair so far considering breeding conditions last summer. Mormon crickets hatching in great number in western Powder River County and southern Custer County.

DANIELS: Only one light shower during past week, with .05 inch precipitation. Cool, dry winds. Seeding operations 65 per cent completed. Early seeded grain up where furrow press drills used. Heavy precipitation needed soon to keep crop coming. Very unfavorable soil conditions for seeding grass crops. Too cool for range grass. Some calf losses reported. Too early for range lambing. Ample labor for spring field operations.

DAWSON: Light scattered showers during the week. Some frost at night. Moisture conditions not too favorable. Field work variable, averaging probably well over half through seeding wheat and up to this amount with other small grains. Outfits working long shifts and covering acreage rapidly. Earlier fields showing tinge of green, but later ones black. Large portion of county doing good job at field operations. Total acreages in many districts will run to normal. Grass is slow, and only in favored slopes showing any green. Stock conditions, even with reduced numbers, not favorable.

FALLON - CARTER: Cool, with scattered showers. Some wheat fields sprouted and showing surface growth. Growth slow this past week. Moisture conditions fair; still below normal. Crested wheat grass shows good growth. Alfalfa and sweet clover started. Legume crops seeded last year in some places coming through. Livestock has shown no gain. Grass too immature in early stages of growth. Most stockmen feeding some range supplement.

FERGUS: Cold during week. Light precipitation. Cool weather retarding growth of both winter wheat and grass. Early seeded spring wheat beginning to come through ground. Grass making slow growth. Livestock beginning to pick up in condition. Some feeding still necessary. Calf crop will be short, with lamb crop below normal partly due to dry feed during breeding season. Very few grasshoppers reported hatched to date.

FLATHEAD: Weather cold and cloudy with light precipitation general throughout the county. Growing conditions have been relatively poor due to continued cold weather. Seeding of spring crops progressing very slowly. A larger acreage this year than normal is being seeded to legumes and grasses. This is largely due to the Soil Conservation program. Reports indicate that the spring wheat acreage is slightly larger than last year, with acreages of other crops about the same, with

(Continued on Page 2.)

FLATHEAD: (Cont'd.) the exception of peas, which will be smaller. Most of the stock is turned out now to grass.

GLACIER: Windy and cold all week, with snow Wednesday and Friday. Considerable soil drifting. Farmers cultivating and a small acreage of wheat seeded first of week; nothing done since heavy snow on Wednesday. Range improving slowly. Unseasonably cold weather holding grass growth back. Livestock in generally fair condition. Stockmen are still having to feed. Adequate labor.

HILL: - Precipitation .01 inch for the past week. Extreme high winds the early part of the week caused considerably soil blowing. Wheat seeding in the eastern one-half of the county about 50% completed. Western one-half of county about 30% completed. Cool weather the past week has slowed up grass growth which is backward for this season. Condition of livestock below normal.

JUDITH BASIN: Season backward and cool; snow storms in parts of county. Precipitation slight. Seeding is well under way. Winter wheat survival poor. Wireworms doing serious damage in local areas. High winds; serious soil blowing. Surface moisture going fast. Grass growing, but slowly. Calving and lambing well along. Feed situation still acute.

LAKE: - Unsettled, with occasional light snow and rain in parts of the county. Wind and lower than average temperatures have kept plant growth about the same as a week ago. Seeding and field work continuing. Livestock condition mostly unchanged. Calving and lambing about normal. Mormon crickets hatched. Infested area larger than first estimated. Control work being organized.

LEWIS & CLARK - BROADWATER: Wet snow in both counties, but not enough to be of much effect on crops. Drying winds occurred in both counties. Temperatures too cool for favorable growing conditions. Some winter killing of winter wheat. Grass growing very slowly. Field work continuing slowly. Cool, changeable weather unfavorable for lambing. Slowness of grass growth makes feeding a problem. Occasional reports of grasshoppers hatching. Nothing definite on probable damage by hoppers.

MADISON - JEFFERSON: Trace of snow or rain was of little benefit. Cold, raw winds delayed growth of plants. In spite of cool weather and late spring, several farmers have completed spring planting of crops, while others have half or more of their crops in the ground. Amount of winter-killing of wheat still cannot be determined; however, there appears to be a poor stand in many fields, with others being badly spotted. Some growth of range grasses, but not enough to furnish feed for livestock. Early lambing more than half completed; later lambing soon after the first of May. Several sheepmen report better than average lamb crop to date. Early calving at least half completed, with a good calf crop reported in all cases. Some ranchers having difficulty in getting experienced men for lambing and farm work.

MEAGHER: Frequent snow flurries; colder. Top soil moist again after last week's winds. Grass hardly starting yet. Winter grains reported doing well. Farming operations barely started. Soil in good condition as soon as dry enough. Little additional feed being bought now. Most stock turned out in lower country, feeding hay on pasture. Lambing beginning this week. Labor supply becoming a little short. Cold and snow causing some trouble lambing, but no losses reported to amount to anything.

MISSOULA: Soil in good condition for working, but no reserve moisture. Alfalfa starting to grow. Reseeding of winter wheat with spring wheat is practically completed. Seeding of spring grain about half completed. Much land leveling and preparation for irrigation being done in the new Frenchtown irrigation district. All lower valley pastures made big improvement during week. Most cattle in higher valleys still being fed. Livestock condition improving.

PARK: - Field operations delayed in northern part of county. Most seeding completed in Yellowstone Valley. Increased acreage of legumes and grasses. Scattered fields of alfalfa reported winter killed. Snow on range land necessitates continued feeding; cattle and sheep in fair condition; most large sheep outfits beginning to lamb, with some of the small bands through. Some demand for farm laborers.

PHILLIPS: No measureable precipitation. Cold and windy most of week. Slightly warmer today, but growing conditions generally unfavorable. Moisture still sufficient to start crops and grass with warmer weather. Soil drifting not pronounced. Spring seeding and preparation generally under way in all parts of county. Valley farmers preparing land for beets and grain crops. Water available for irrigation over most of project. Dry land sections need more moisture. Seed situation being taken care of. Indications point to smaller acreage of grain crops but more corn and feed. Lack of credit and lack of subsoil moisture both limiting factors this year. Condition of livestock fair to good, with most of stock still on feed. Stock water plentiful but grass has made little growth. Some lambing reported. Calf crop so far normal. Labor balanced.

PONDERA: For the most part of the week, high winds had a tendency to draw out considerable moisture. Moisture reserves vary from four to eighteen inches in depth. On Friday of this week heavy wet snow and rain indicated precipitation to the extent of 75 hundredths of an inch in the east portion of the county, about three-tenths of an inch in the central portion and again imreasing in the western half to approximately one-half inch. Wheat seeding was prohibited by high winds, but went into full swing the last few days. It is expected that approximately 25,000 acres have been started fallowing. Oat and barley seed supplies at present indicate a shortage. Some oats have been seeded.

(Continued on Page 3.)

PONDERA: (Cont'd.) Native sod pastures appear to be coming along in splendid shape so that with what old grass there is at present, together with the new grass, there will be sufficient pasture to carry sheep and cattle within a few more days.

PRAIRIE: A light shower fell on the area north of the divide Wednesday. Seeding is in full swing with all farmers in the field. The cold weather has not been too favorable for germination, and the winds have taken some of the moisture. Grass is slow in starting. Lack of finance will make some of the crops short. Livestock is thin. Most of the farm work being done with tractors. The labor supply is ample.

RICHLAND: Drying winds during forepart of week causing some soil blowing. Moderate rain throughout county during middle of week giving sufficient moisture to start crops. Temperature moderate. Crop outlook considerably better after rains. Farmers have about one-half of their spring seeding done. Increased moisture will have no material effect on planting acreage of small grains, which is still expected to be below that of last year. No hatching of grasshoppers has been reported as yet; probably because of prevailing medium low temperatures. Livestock situation unchanged.

ROOSEVELT: No precipitation of consequence during week. Field operations have been in full swing since April 16, with no interruption by adverse weather. Early seeded wheat now showing. Last year's thistle crop a blessing and a curse as it has helped hold winter snows and now requires much time and effort to remove. Grass starting slowly. All livestock thin. Hay scarce.

ROSEBUD: Scattered local showers; too light to be of any benefit. Temperature below normal for the week. Early planted spring wheat beginning to come up. Seeding of spring wheat and sugar beets 50 % completed. Rain needed to insure an even stand of beets. All range stock turned out. Barely enough new grass to maintain them. Quality of seed generally low. Limited acreage will be seeded due to inability to secure seed loans.

SANDERS: Continued cold and cloudy weather with daily showers. Precipitation for past week .73 inch. Winter wheat making good growth under good moisture conditions. General good stand meadows making fair growth. Increased spring seeding of legumes and grasses. Seeding of spring grain 50% completed. Spring work retarded about 3 weeks account of cold backward weather. Livestock in good condition and turned out on range. Range making good growth. Crickets hatching in large numbers over wide range areas; none reported in farming areas.

STILLWATER: Cold and windy first part of week, with .39 inch precipitation the middle of the week. Precipitation general over county. Spring seeding in full swing. Greater part of beet acreage has been seeded. Cold weather and wind has not been conducive for good growing conditions. Scattered reports of cutworm damage. Crickets hatching out in large numbers. Some ranchers still feeding. Feed supplies very short. Larger operators starting to lamb.

SHERIDAN: Continued dry; cloudy, but only light rains occurred. Several days of high winds. Seeding of wheat under way, but farmers reluctant to plant until more moisture is assured. Feeding continues as grass will grow only where moisture from drifted snow has accumulated. Most local labor at work, at least part time. Seed loans mostly in. Seed grain seems to be sufficient.

SUN RIVER PROJECT: Cold and windy greater portion of the week, with a light skiff of snow on Thursday. Fields generally too dry for germination of seed. Irrigation planned to start immediately. Livestock still on dry feed, with grass starting very slowly and only in coulees where snow drifted.

SWEETGRASS: Precipitation .15 inch. General growing conditions poor due to cold weather; freezing some at nights. Grasses and winter wheat at a standstill. There has been some spring wheat seeding. Plowing and preparation of seed beds in full swing in most parts of the county. Still too wet in some parts, especially on low ground, for working. Reports of damage from cutworms on winter wheat on dry land. Need warmer weather badly. Livestock, especially cattle, in very poor condition due to poor wintering on account of insufficient feed. Considerable loss of young calves and older cows. Sheep in somewhat better condition, but considerable loss of lambs due to weakness. Unable to secure necessary livestoc feeds, especially hay.

TETON: - Trace of precipitation here. A couple of inches of snow reported in the eastern part of the county. Days mostly clear, with rather cold west winds prevailing. Seeding of wheat rather slow. No report of worms as yet. It is expected that seeding will be in full swing around the middle of the coming week. Farmers plenty discouraged in regard to moisture conditions.

TOOLE: - Only a few farmers have their seeding done. The majority got into the fields for the first time this week, and an extremely hard crust and low wet spots made working difficult. Seeding will be further delayed by the snowfall that is still continuing. The blizzard of the past week put considerable snow in the coulees and in drifts. It adds to the difficulty of getting into the fields. In general, there is sufficient moisture throughout the county to germinate the seed, and some areas have considerable subsoil moisture. All livestock are now on the range, but the growth of grass is slow due to the cold weather. Lambing expected to be in full force next week. Some men going off relief rolls for farm jobs and other work. Still sufficient labor on hand for any emergency.

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VALLEY: Growing conditions very poor, mainly due to the lack of moisture. Farm work is in full swing in the irrigated section, with considerable additional land being leveled and brought under irrigation. There is very little or no green grass in the county.

Stockmen and some sheepmen have their stock on the range where reservoirs have practically filled up to some extent from spring run-off and there is grass which was not fed off last year due to the lack of water. The balance of the stockmen are feeding either hay or cake. Herds of sheep that were moved out for wintering have been brought back to the county. Very few calls for labor, but it seems almost impossible to secure men that can do farm work at present. No sign of grasshoppers at this time.

WIBAUX: Slight precipitation. Weather too cold for ideal growing conditions. Grass is showing some in lower places. Seeding in full swing; about 50% of the wheat in. Soil is in very good condition for planting. Ample moisture in all parts of the county for starting grain except the extreme north end is rather dry. Cold weather and shortness of grass necessitates heavy feeding of livestock. Indications are that the lamb crop will be short. Labor scarce, but not very much demand.

YELLOWSTONE: Precipitation .27 inch. High winds; cool, unsettled weather throughout the week. Growing conditions adverse. Winter wheat still holding its own and some growth showing although weather conditions have been unsatisfactory. Over fifty per cent of beets seeded and over half of the spring wheat in the irrigated areas seeded. Some spring wheat up with good stands reported. Range lambing and calving under way, with good per cent reported. Grass growing and in good shape. Some reports of grasshopper hatching, but seems to be confined to local areas. Cricket organization completed and seven community crews have done some dusting with excellent results.

GALLATIN: Week characterized by cloudiness, by intermittent snows and cold rains. This was more apparent in the east side of the county than in the west. Farmers in the upper part of the valley still unable to do any field work because of mud, and many roads are still impassable in this area. In the south and west portions of the county, field work is going ahead and a good start has been made on seeding spring grain. Range lambing starting. Range land and pastures showing definite growth.

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Helena, Montana,
April 28, 1937.